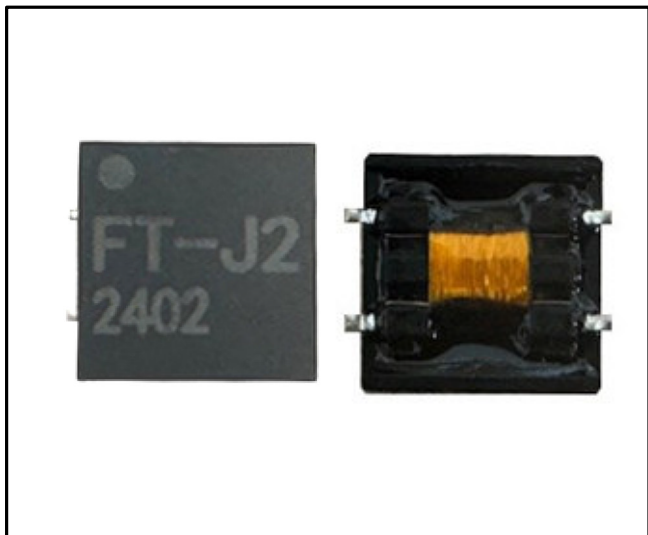
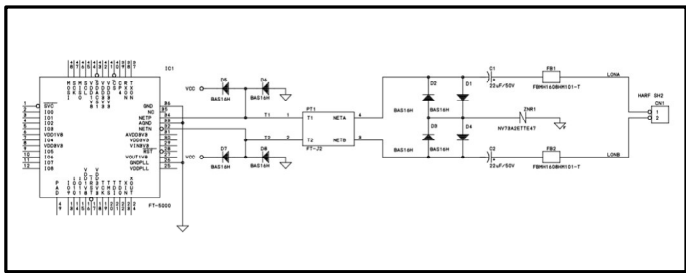


FT-J2 Free Topology Transceiver



Connection circuit diagram

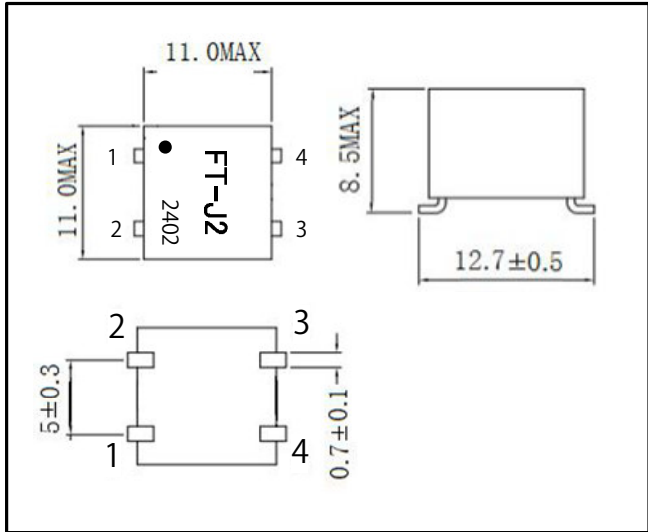


The window clamp circuit (D5, D6, D7, D8) is connected to terminals T1 and T2.

Description

The FT-J2 Free Topology Transceiver is a transceiver compliant with ANSI/CEA-709.3+R2015. By combining the ANSI/CEA-709.1-B (EN14908.1) protocol stack with the FT-J2 transceiver, it is possible to connect to an FT-10 free topology network using this pulse transformer. The FT-J2 is a pulse transformer that can be connected to FT-709MW, EIA709MW, and FT-5000.

FT-J2 Communication Transformer SMT Package Diagram



FT-J2 Transformer Pin Descriptions

Pin Number	Pin Name	Pin Function
1	T1	Internally connects to pin
2	T2	Internally connects to pin
3	NETB	Network Port, polarity Insensitive
4	NETA	Network Port, polarity Insensitive

General Specifications

Data Communications Type
Differential Manchester coding

Network Polarity
Polarity insensitive

Isolation Between Network and
0-60Hz, 60 seconds 1000Vrms
0-60Hz, continuous 277Vrms

EMI
Designed to comply with FCC Part 15 Level B and EN55022 Level B

ESD
Designed to comply with EN 61000-4-2, Level 4

Radiated Electromagnetic Susceptibility
Designed to comply with EN 61000-4-3, Level 3

Fast Transient/Burst Immunity
Designed to comply with EN 61000-4-4, Level 4

Surge Immunity
Designed to comply with EN 61000-4-5, Level 3

Conducted RF Immunity
Designed to comply with EN 61000-4-6, Level 3

Transmission Speed
78 kilobits per second

Number of Transceivers Per Segment
Up to 64

Network Wiring
24 to 16AWG twisted pair

Network Length in Free Topology
1000m (3,280 feet) maximum total wire with one repeater
500m (1,640 feet) maximum total wire with no repeaters
500m (1,640 feet) maximum device-to-device distance

Network Length in Doubly Terminated Bus Topology
5400m (17,710 feet) with one repeater
2700m (8,850 feet) with no repeaters

Network Termination
One terminator free topology; two terminators bus topology

Operating Temperature
-40 to 85°C

Operating Humidity
25-90% RH @50°C, non-condensing

Peak Reflow Soldering Temperature
260°C